UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LUTZ RICHTER, ANDREAS STEINERT, and SIEGMAR TISCHER

Appeal 2007-2006
Application 09/852,348
Technology Center 3700

Decided: November 21, 2007

Before HUBERT C. LORIN, JENNIFER D. BAHR, and LINDA E. HORNER, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Lutz Richter et al. (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 6, 8, 10-12, 14, and 20-25. Claims 15-19, the only other pending claims, have been withdrawn from consideration by the Examiner. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

THE INVENTION

Appellants' claimed invention is directed to a gathering stapler. A gathering stapler is a paper-processing machine for putting together and stapling a plurality of folded sheets to form a product, such as a brochure (Spec. 1:13-15). Claim 20, the only independent claim involved in this appeal, reads as follows:

> 20. A gathering stapler, comprising:
>
> a plurality of cooperating subassemblies including an operatively revolving endless chain having a conveying strand running in a conveying direction and conveying gathered folded sheets;
>
> a stapling carriage assigned to said conveying strand and operatively oscillating in parallel with said conveying strand for running in synchronicity with said conveying strand in the conveying direction within certain time segments;
>
> stapling heads mounted to said stapling carriage and adapted for ejecting staples;
>
> a stapling displacement configuration adapted for activating said stapling heads for ejecting said staples;
>
> a delivery;
>
> an ejector adapted for operatively oscillating in parallel with said conveying strand for running in synchronicity with said conveying strand in the conveying direction within certain time segments and for operatively oscillating between said conveying strand and said delivery within a path rectilinear to said conveying strand within certain time segments; and
>
> a plurality of subassembly drives running in continuous operation;

at least some of said subassembly drives each including a controllable motor.

THE EVIDENCE

The Examiner relies upon the following as evidence of unpatentability:

Dunn	5,816,467	Oct. 6, 1998
Boss	6,142,353	Nov. 7, 2000
Raffoni	6,220,494	Apr. 24, 2001

THE REJECTIONS

The following rejections are before us for review:

(1) Claims 6, 12, and 20-23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Boss in view of Raffoni.

(2) Claims 8, 10, 11, and 14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Boss in view of Raffoni and further in view of Dunn.

(3) Claims 21, 22, 24, and 25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Boss in view of Dunn.

The Examiner provides reasoning in support of the rejections in the Answer (mailed December 19, 2005). Appellants present opposing arguments in the Appeal Brief (filed September 29, 2005) and Reply Brief (filed February 27, 2006).

OPINION

Rejection (1)

Appellants do not argue dependent claims 6, 12, and 21-23 separately from independent claim 20 (App. Br. 13). Therefore, in accordance with 37

C.F.R. § 41.37(c)(1)(vii) (2007), we select claim 20 as the representative claim in deciding the appeal of this rejection, with claims 6, 12, and 21-23 standing or falling with claim 20.

Boss is directed to a gathering stapler, like Appellants' gathering stapler. The gathering stapler of Boss outputs 18,000 copies per hour (col. 1, l. 44). Boss has a gathering chain 6 for transporting products 11 resting on their folds 11a on carriers 10 of chain 6 (col. 2, ll. 53–56). Boss also has a stapling carriage 15 that moves parallel to the conveying strand of chain 6 by movement of crank 13 (col. 3, ll. 15-24). Stapling carriage 15 has stapling heads 16 thereon, which are driven vertically by rotation of shaft 39 and cam discs 40 (col. 4, l. 31 to col. 5, l. 50). According to Boss, "[o]nce products 11 are stapled, they are individually grasped by a delivery device, not shown, and raised from running double gathering chain 6, then supplied to, for example, a cutting device, not shown, for further processing" (col. 3, ll. 9-12). Boss provides a common drive 3 to drive (1) chain wheel 7 that drives the chain 6 (col. 2, ll. 59-60), (2) drive 12 (crank wheel 65), which ultimately drives crank 13 to move the stapling carriage 15 parallel to the conveying strand (col. 3, ll. 15-24), and (3) drive 14, which drives belt 38, and hence shaft 39 and cam discs 40, to drive the stapling heads 16 up and down (col. 4, ll. 48-65). Boss thus lacks "at least some of said subassembly drives each including a controllable motor," as called for in claim 20.

The Examiner finds that "Boss only fails to discloses [sic, disclose] the use of a separate motor for the first (12) and second (14) drive units, while meeting all other limitations of independent claim 20 of Applicant's invention" (Ans. 6) and Appellants do not dispute this. Accordingly, the only issue presented for our review of the rejection of claim 20 is whether it

would have been obvious to a person of ordinary skill in the art to provide a separate motor for each of at least some of the subassemblies of Boss, as required by claim 20.

The Examiner relies on Raffoni for the use of separate drives for different subassemblies. Raffoni discloses apparatus for stapling backing elements to picture frames (moldings) (col. 1, ll. 6-9). The picture frames (moldings) are conveyed on belt 2 (col. 1, ll. 66-67). The apparatus also includes two sliding blocks 25, 26 (stapling carriage) that move transverse to the conveying direction of belt 2, such movement being driven by reversible motors 28, 37 (col. 2, ll. 41-66). Motors 35, 39 are provided to lower sliders 30, which are activated to drive staples into the strips 21 of the molding (col. 3, ll. 29-37). Thus, Raffoni does disclose a stapling and conveying apparatus wherein the drives of the stapling carriage and stapler displacement are each driven or actuated by a separate motor. While the drive for conveyor 2 is not shown or specified by Raffoni, the Examiner takes official notice that the user of motors to power endless conveyors was well known (Ans. 4) and Appellants do not dispute or challenge this.[1]

The Examiner contends it would have been obvious to include a multiple drive system as taught by Raffoni, in place of the single drive system of Boss, for the purpose of offering the capability of individual adjustment (Boss, col. 5, ll. 60-64) (Ans. 4).

Appellants argue it would not have been obvious to replace the single drive system of Boss with a multiple drive system as taught by Raffoni. For

[1] If an applicant does not seasonably traverse the taking of official notice during examination, then the object of the official notice is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 711, 713 (CCPA 1943).

the reasons that follow, Appellants' arguments do not demonstrate reversible error in the Examiner's rejection.

Specifically, Appellants contend that since gathering staplers, such as Boss (col. 1, l. 44), run at speeds in excess of 14,000 cycles per hour, synchronization of the individual components is of the utmost importance (App. Br. 9). Thus, according to Appellants, a person of ordinary skill in the art knows synchronization must be extremely precise and "is unlikely to stray from a mechanical interconnection of the individual components" (App. Br. 9-10). Appellants argue that, because of this speed, the forces acting on the ejector are around 9-10 g (App. Br. 13-14). According to Appellants, a person of ordinary skill that is aware of these high forces and the need for synchronization between the ejector blade and the other movements of the gathering stapler is not provided with any motivation to add a drive to the ejector that has to withstand the same forces, especially when synchronization can be much more easily achieved by a direct coupling with a main drive as already taught by Boss (App. Br. 14).

Appellants provide no evidence to support their contention that the operating speeds of gathering staplers would be viewed by a person of ordinary skill in the art as an impediment to providing separate, electronically-controlled and synchronized motors to drive at least some of the subassemblies. It is well established that arguments in a brief cannot take the place of evidence. *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974). Moreover, the evidence of record does not support Appellants' position that synchronization can be much more easily achieved by a direct coupling with a main drive, as taught by Boss, than by separate, centrally controlled motors driving each of the separate moving components. On the

contrary, the drive system of Boss, with its elaborate arrangement of a crank wheel 65, crank 13, bevel wheel 14b, drive wheel 14c, toothed belt 38, drive wheel 37, drive shaft 39, bearings 28, bearing plates 26, retaining plates 25, cam disks 40, etc. (col. 3, ll. 22-24 and col. 4, l. 54 to col. 5, l. 50) to drive the chain 6, stapling carriage 15, and stapler heads 16 from a single drive 3, appears to be much more complicated, prone to wear, and difficult to maintain and repair than the arrangement of separate motors to drive the conveyor, the stapling carriage, and stapler displacement. One of ordinary skill in the art would have found it obvious to provide separate, centrally controlled motors to drive at least some of the moving components of Boss to update the apparatus of Boss using modern electronic components "in order to gain the commonly understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost." *See Leapfrog Enterprises, Inc. v. Fisher Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

Appellants also argue that Raffoni does not disclose an ejector adapted for oscillating in parallel with the conveying strand at certain times and oscillating between the conveying strand and delivery within a path rectilinear to the conveying strand at other times (App. Br. 10-12). While this may be true, the rejection is not based on Raffoni alone but, rather, on the combination of Boss and Raffoni. As conceded by Appellants, "**Boss** does disclose an ejector that performs a movement similar to the ejector of the instant application" (App. Br. 12). Nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Finally, Appellants argue that because Raffoni is directed to a stapler for stapling backings onto picture frame moldings, not a gathering stapler, there is no motivation to combine Boss and Raffoni (App. Br. 14-17). "[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740 (2007). Further, when the improvement is technology-independent and the combination of references results in a product or process that is more desirable, an implicit motivation to combine exists even absent any hint of suggestion in the references themselves. "In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him *capable* of combining the prior art references." *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006). A person of ordinary skill in the art would readily appreciate that the benefits to be gained by providing a separate motor for each separately moving component of a system, as disclosed in Raffoni, are certainly not unique to stapling apparatus for stapling backing elements to picture frames (moldings) and that such benefits could also be achieved in other apparatus, especially other stapling apparatus, such as that of Boss. Moreover, Appellants do not provide any evidence to show that modification of Boss to provide separate drives for at least some of the components driven by the common drive 3 would have been beyond the technical grasp of a person of ordinary skill in the art.

In light of the above, we conclude it would have been obvious to replace the single drive system of Boss with a multiple drive system as

taught by Raffoni. We therefore sustain the rejection of claim 20, and dependent claims 6, 12, and 21-23, which stand or fall with claim 20, as unpatentable over Boss in view of Raffoni.

Rejection (2)

Appellants' only argument as to why claims 8, 10, 11, and 14, which depend from claim 20, are unpatentable over Boss in view of Raffoni and Dunn is that "Dunn does not make up for the deficiencies of Boss and Raffoni" (App. Br. 17-18). According to Appellants, since claim 20 is allowable, the dependent claims are allowable as well (App. Br. 18). For the reasons discussed above, Appellants have not demonstrated any error or "deficiencies" in the Examiner's rejection of claim 20 as unpatentable over Boss in view of Raffoni. Appellants' argument as to claims 8, 10, 11, and 14 thus likewise fails to demonstrate error in the rejection of claims 8, 10, 11, and 14 as unpatentable over Boss in view of Raffoni and further in view of Dunn. The rejection is sustained.

Rejection (3)

Appellants argue, in effect, that because claims 21, 22, 24, and 25 depend from claim 20, which has been rejected as unpatentable over the combination of Boss and Raffoni, it is not clear how these dependent claims can be rejected without Raffoni (App. Br. 18). Appellants further argue that Dunn does not make up for the deficiencies of Boss and that "[s]ince claim 20 is allowable, dependent claims 21, 22, 24, and 25 are allowable as well" (App. Br. 18).

We find no inherent inconsistency in the Examiner's rejection of claim 20 as unpatentable over Boss in view of Raffoni and claims 21, 22, 24, and 25 as unpatentable over Boss in view of Dunn, without Raffoni. The

Examiner's findings that Dunn discloses a stapling device comprising an endless delivery conveyor having a drive system separate from the drive system of a stapling carriage and stapling displacement configuration (Ans. 5) and taking of official notice that the use of motors to power an endless conveyor and robotic structure (stapling carriage and stapling head) was well known for the purpose of automation, in essence, appear to substitute for the Examiner's reliance on and findings with respect to Raffoni. Rather, it is the Examiner's omission of independent claim 20 in this rejection that is perhaps somewhat puzzling. Appellants do not explain why Dunn "does not make up for the deficiencies of Boss" and thus fail to demonstrate reversible error in the Examiner's rejection of claims 21, 22, 24, and 25 as unpatentable over Boss in view of Dunn. The rejection is sustained.

SUMMARY

The decision of the Examiner to reject claims 6, 8, 10-12, 14, and 20-25 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

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